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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,772	09/27/2001	Tomio Amano	JP9-2000-0267US1 (590.083)	3441
35195	7590	10/07/2004	EXAMINER	
FERENCE & ASSOCIATES 400 BROAD STREET PITTSBURGH, PA 15143			TRAN, QUOC A	
			ART UNIT	PAPER NUMBER
			2176	

DATE MAILED: 10/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/965,772

Applicant(s)

AMANO, TOMIO

Examiner

Quoc A. Tran

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/24/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to application filed 09/27/2001.
2. Claims 1-22 are pending. Claims 1, 4, 6, 8, 10, 12-13, 15-17 and 19-22 are independent claims.
3. If a copy of a provisional application listed on the bottom portion of the accompanying Notice of References Cited (PTO-892) form is not included with this Office action and the PTO-892 has been annotated to indicate that the copy was not readily available, it is because the copy could not be readily obtained when the Office action was mailed. Should applicant desire a copy of such a provisional application, applicant should promptly request the copy from the Office of Public Records (OPR) in accordance with 37 CFR 1.14(a)(1)(iv), paying the required fee under 37 CFR 1.19(b)(1). If a copy is ordered from OPR, the shortened statutory period for reply to this Office action will not be reset under MPEP § 710.06 unless applicant can demonstrate a substantial delay by the Office in fulfilling the order for the copy of the provisional application. Where the applicant has been notified on the PTO-892 that a copy of the provisional application is not readily available, the provision of MPEP § 707.05(a) that a copy of the cited reference will be automatically furnished without charge does not apply.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1-22 are rejected under 35 U.S.C. 103(a) as being unpatentable by Thielens et al. US Patent No. 5,666,139 issued 09/09/1997 filed 03/03/1995 (hereinafter '139), in view of Stern et al. US Pub No. 2003/0177115 A1 provisional No. 60/227,512 filed 08/24/200 (hereinafter '115).**

In regard to independent claim 1, *"defining a tag set to prevent errors or... that occur frequently during the re-input of text; and using a tag set to add rewritten information to a predetermined portion of said application data"*, as taught by '139 at col. 17, line 65 through col. 18, line 20 (i.e... edit tag list... the answer to step 454 is yes, whereupon an edit tag text insert pad, similar to the one shown in FIG. 7, is displayed in step 460, and the copy editor can add text to the edit tag insert pad in step 462... display error message appears in step 468...).

'139 does not explicitly teach, *"An error correction support method for application data written in a markup description language"*, however, as taught by '115 at page 1, paragraph [0001] (i.e..... method in which the probability of errors occurring during the preparation of the scanned documents...), also as taught by '115 at page 2, paragraph [0018] (i.e..... document written in a mark-up language including, but not limited to, HTML (hypertext mark-up language) or VRML (virtual reality modeling language),

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dynamic HTML, XML (extensible mark-up language) or XSL (XML styling language), or related computer languages thereof ...).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the feature, wherein data written in a markup description language. One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution, which could be easy to perform automatically, without requiring extensive manual intervention in any computational devices, and available though the world wide web, as taught by '115 at page 1, paragraph [0007] (i.e... such a solution should be easy to perform automatically...), and also as taught by '115 at page 2, paragraphs [0014] and [0017] (i.e...computational device... world wide web..).

In regard to dependent claim 2, *"wherein said tag set is defined for at least one of a character in the same shape, a similar character, a space or a character having a complicated shape"*, as taught by '139 at col. 3, line 15 through col. 4, line 21 (i.e..... generally provide a spelling checker, similar to conventional word processing computer systems. Such spelling checkers generally include a master list ...).

In regard to dependent claim 3, '139 does not explicitly teach, *"wherein said markup description language is XML (Extensible Markup Language)"*, however, as taught by '115 at page 2, paragraph [0018] (i.e..... document written in a mark-up language including, but not limited to... XML (extensible mark-up language ...).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the

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feature, wherein the markup description language is XML (Extensible Markup Language). One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution, which could be easy to perform automatically, without requiring extensive manual intervention in any computational devices, and available through the world wide web, as taught by '115 at page 1, paragraph [0007] (i.e... such a solution should be easy to perform automatically...), and also as taught by '115 at page 2, paragraphs [0014] and [0017] (i.e...computational device... world wide web..).

In regard to independent claim 4, incorporate substantially similar subject matter as cited in claims 1 above, and in further view of the following, and is similarly rejected along the same rationale.

"writing correction code, which is based on a predetermined algorithm", as taught by '115 at page 3, paragraph [0038] (i.e... Algorithms for the calculation of the degree of error may vary. For example, the average word error probability can optionally be calculated as $1 \text{ AverageErrorProbability} = (\text{input}) / n...$).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the feature, wherein writing correction code, which is based on a predetermined algorithm. One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution, which could be easy to perform automatically, without requiring extensive manual intervention, as taught as taught by

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'115 at page 1, paragraph [0007] (i.e... such a solution should be easy to perform automatically...).

In regard to independent claim 5, *"wherein said correction code is calculated for a character string that represents an attribute value or an attribute name, and is written using a predetermined attribute for the description of an error code"*, as taught by '115 at page 4, paragraph [0049] [(i.e... FIG. 3A -FIG. 3B shows... the word "Henry" even when misspelled as "Hehry", as shown by the underlined located search words...), and also as taught by '115 at page 3, paragraphs [0039]-[0043] (i.e... n is the number of characters in the word... ErrorDegree variable can have 4 fuzzy or categorical values...).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the feature, wherein said correction code is calculated for a character string that represents an attribute value or an attribute name, and is written using a predetermined attribute for the description of an error code. One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution, which could be easy to perform automatically, without requiring extensive manual intervention, as taught as taught by '115 at page 1, paragraph [0007] (i.e... such a solution should be easy to perform automatically...).

In regard to independent claim 6, incorporate substantially similar subject matter as cited in claims 4 above, and is similarly rejected along the same rationale.

In regard to independent claim 7, *"wherein said error correction codes are generated for all multiple character strings that are selected, and are added after predetermined elements of said application data have been written"*, as taught by '115 at page 4, paragraphs [0048]-[0049] (i.e... error which occurs during the OCR process... FIG. 3A -FIG. 3B shows... the word "Henry" even when misspelled as "Hehry", as shown by the underlined located search words...), also as taught by '115 at page 2, paragraph [0025] (i.e..... recognized words from the OCR process are preferably indexed with the associated probability of error...).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the feature, wherein said error correction codes are generated for all multiple character strings that are selected, and are added after predetermined elements of said application data have been written. One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution, which could be easy to perform automatically, without requiring extensive manual intervention, as taught as taught by '115 at page 1, paragraph [0007] (i.e... such a solution should be easy to perform automatically...).

In regard to independent claim 8, *"writing said attribute types to said application data using a predetermined tag set"*, as taught by '139 at col. 17, line 65 through col. 18, line 20 (i.e... edit tag list... the answer to step 454 is yes, whereupon an edit tag text insert pad, similar to the one shown in FIG. 7, is displayed in step 460, and

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the copy editor can add text to the edit tag insert pad in step 462... display error message appears in step 468...).

'139 does not explicitly teach, *"sorting, into predetermined attribute types, words in said application data that may constitute barriers in a context process; and transmitting or storing said application data with which said attribute types are included"*, however, as taught by '115 at page 2, paragraph [0014] (i.e..... the term "computational device" includes, but is not limited to, any type of computers operating according to any type of hardware and/or operating systems; or any device...), also as taught by '115 at page 2, paragraph [0017] (i.e..... "Web server" refers to a server capable of transmitting a Web page to the Web browser upon request...), also as taught by '115 at page 2, paragraph [0025] (i.e..... recognized words from the OCR process are preferably indexed with the associated probability of error...).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the feature, wherein an error correction support method for application data included transmitting, sorting words in said application data that may constitute barriers in a context process from predetermined attribute types, and writing said attribute types to said application data using a predetermined tag set. One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution, which could be easy to perform automatically, without requiring extensive manual intervention, as taught as taught by '115 at page 1, paragraph [0007] (i.e... such a solution should be easy to perform automatically...).

In regard to independent claim 9, "*wherein said words that are sorted into said predetermined attribute types and that may constitute barriers in said context process is at the least one of a set comprising proper nouns, ... that appear as attribute values*", as taught by '115 at page 4, paragraph [0049] (i.e... FIG. 3A -FIG. 3B shows... the word "Henry" even when misspelled as "Hehry", as shown by the underlined located search words...).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the feature, wherein said words that are sorted into said predetermined attribute types and that may constitute barriers in said context process is at the least one of a set comprising proper nouns, ... *that appear as attribute values*. One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution, which could be easy to perform automatically, without requiring extensive manual intervention, as taught as taught by '115 at page 1, paragraph [0007] (i.e... such a solution should be easy to perform automatically...).

In regard to independent claim 10, is directed to a system for performing the method of claims 1, 4 and is similarly rejected along the same rationale.

In regard to dependent claim 11, is directed to a system for performing the method of claim 6 and is similarly rejected along the same rationale.

In regard to independent claims 12-13, are directed to a system for performing the method of claim 4 and is similarly rejected along the same rationale.

In regard to dependent claim 14, is directed to a system for performing the method of claims 4, 5, and in further view of the following and is similarly rejected along the same rationale.

"when said automatic correction is determined to be possible", as taught by '139 at col. 9, line 45 through col. 10, line 15 (i.e....global search and replace...spelling of the word...automatic effect...).

In regard to independent claim 15, is directed to a system for performing the method of claims 1, 8, and in further view of the following and is similarly rejected along the same rationale.

"a word dictionary and individual character recognition results obtained from said text information", as taught by '139 at col. 9, lines 50-55 (i.e... Such a word list can supplement the fixed dictionary built into the pen computing software, and will be specifically associated with the particular file or manuscript that is opened. For example, the copy editor may wish to change the British spelling of the word "characterizing" to the U.S. spelling "characterizing"...).

In regard to independent claim 16, is directed to a system for performing the method of claims 4, 8, and in further view of the following and is similarly rejected along the same rationale.

"compares character with entries in a word dictionary....", as taught by '139 at col. 9, lines 50-55 (i.e... Such a word list can supplement the fixed dictionary built into the pen computing software, and will be specifically associated with the particular file or

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manuscript that is opened. For example, the copy editor may wish to change the British spelling of the word "characterizing" to the U.S. spelling "characterizing"...).

In regard to claims 17-18, is directed to a system for performing the method of claims 1, 4 and in further view of the following and is similarly rejected along the same rationale.

"...., said application data including correction information that is printed on a paper-based document or form", as taught by '139 at col. 1, lines 30-35 (i.e... The job of the copy editor is to carefully review the manuscript for changes therein. Specifically, the copy editor first manually folios or numbers all of the pages, and then reviews and edits the manuscript for grammatical and contextual errors by writing the changes on the printed manuscript, and flagging author queries and rewrites...),

"....second computer receives, from said first computer...", as taught by '115 at page 2, paragraphs [0017]-[0018] (i.e... "Web browser" refers to any software program, which can display text, graphics, or both, from Web pages on World Wide Web sites. Hereinafter, the term "Web server" refers to a server capable of transmitting a Web page to the Web browser upon request...).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified '115 into '139 to provide a way to include the feature, wherein an error correction support method for application, which could be extended to an application data provision system such that the second computer receives, from said first computer. One of ordinary skill in the art would have been motivated to perform such a modification to provide error correction solution from any

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data sources (e.g. printed newspaper, microfilm, digital data...), which could be easy to perform automatically, without requiring extensive manual intervention, as taught as taught by '115 at page 1, paragraphs [0003] and [0007] (i.e... such a solution should be easy to perform automatically...).

In regard to independent claim 19, incorporate substantially similar subject matter as cited in claims 17-18 above, and in further view of the following and is similarly rejected along the same rationale.

"comparing individual character recognition results with entries in a word dictionary", as taught by '139 at col. 9, lines 50-55 (i.e... Such a word list can supplement the fixed dictionary built into the pen computing software, and will be specifically associated with the particular file or manuscript that is opened. For example, the copy editor may wish to change the British spelling of the word "characterizing" to the U.S. spelling "characterizing"...).

In regard to independent claim 20, is directed to a medium for performing the method of claims 1, 6 and is similarly rejected along the same rationale.

In regard to claims independent claims 21-22, is directed to a medium for performing the method of claims 1, 4 and are similarly rejected along the same rationale.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Moser et al USPAT- 6,275,789 B1 issued 08/14/2001 filed 12/18/1998

Gallup et al US PAT- 6,658,627 B1 issued 12/02/2003 filed 09/08/1999


7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc A. Tran whose telephone number is (703) 305-8781, **"After Oct 20, 2004, the examiner can be reach at (571) 272- 4103"**. The examiner can normally be reached on Monday through Friday from 8:30AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quoc A. Tran
Patent Examiner
Technology Center 2176
September 30, 2004


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER